

## Utility Service Interruption: Another Aspect of Supply Chain Exposures

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**"Hurricane Sandy was a powerful tropical cyclone ... While it was a Category 2 storm off the coast of the Northeastern United States, the storm became the largest Atlantic hurricane on record ... with winds spanning 1,100 miles."**

*~Wikipedia: "Hurricane Sandy"*

**"We can choose to believe that Superstorm Sandy, and the most severe drought in decades, and the worst wildfires some states have ever seen were all just a freak coincidence, or we can choose to believe in the overwhelming judgment of science—and act before it's too late."**

*~President Obama, State of the Union address, February 12, 2013*

**"It is better to have your head in the clouds, and know where you are ... than to breathe the clearer atmosphere below them and think you are in paradise."**

*~Henry David Thoreau (July 12, 1817, to May 6, 1862), American author, poet, philosopher, and naturalist*

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Catastrophic events can be wake-up calls to the risk management community. Hurricane Katrina in 2005 and the 2011 earthquake in Japan caused major disruptions in supply chains throughout the world. Who would have thought a disaster in New Orleans or half a world away in Japan could impact businesses throughout the United States? Those who understood all aspects of their organization's supply chain.

Wake-up calls are fine for the risk management professional who does not suffer loss and uses the event to review "what-ifs" as if the event had impacted his or her organization. An unforeseen event may be a disastrous wake-up call to a risk management professional and his/her organization if no prior thought had been given to the possibility of such disaster. There is a lot of intellect in Mr. Thoreau's musings in the context of either natural or manmade disasters. In fact, it seems Mr. Thoreau was an early pioneer of the modern risk management process: *you have to know your loss exposures!*

My insurance consulting practice allows me to work with risk management professionals throughout the United States as they plan and operate their specific risk management programs, including risk financing. My work also brings me into contact with those in the risk management community who unfortunately did not adequately anticipate the effect of a peril and thus have insurance coverage issues. Hurricane Sandy provided me with insight into the issues of utility service interruption and the adverse effects on organizations in all types of industries. Risk management professionals *must consider interruption of utility services any time supply chain risk management is considered.*

What was the unique loss exposure from Hurricane Sandy? Flood was. Many inland organizations never considered their flood exposure in terms of incoming services, such as electricity. Most of the time, when the risk management community considers loss exposures from interruption of utilities, it is in terms of a disruption in electricity, usually caused by wind and downed power lines. For many organizations, it was considered only as

a direct peril to their locations, not how it could impact their organizations from afar. Sandy was different.

Many organizations lost power when electrical utility substations were flooded and services stopped. Why is this different? Many risk management professionals make exposure and resulting coverage decisions based on what can occur *at their* organization's locations and *overlook* contingent exposures from perils that may occur elsewhere. This is a fundamental flaw in many risk management programs: inadequate concern about local impact from a disaster elsewhere. This was the root cause of supply chain impact from Hurricane Katrina and the Japanese earthquake. The organization has to consider perils of *every kind*—not just the obvious that may directly impact its locations.

### **Supply Chain Risk Management**

Supply chain risk management must consider interruption of service from utilities not located on the organization's premises. A lack of incoming and outgoing utilities will likely bring an organization to a halt quicker than a delay in supplies. What will happen to your organization if some or all its service utilities stop or are curtailed for an extended period of time? Many organizations may not be able to create adequate backup systems to limit the period of interruption: incoming electricity, water, or electronic data. This means that risk financing, probably a combination of insurance and a waiting period, will become the primary technique for utility interruption risk management.

Proper attention to each step of the risk management process is critical to identify all appropriate issues related to utility interruption exposures. Business continuity planning (BCP) will be very much a part of utility interruption risk management. BCP should be a dynamic process to identify the overall utility supply chain, exposures created by interruption and loss control, and/or mitigation strategies. Loss control techniques, such as redundant suppliers, may not be viable solutions for extended periods of interruption since there are limited quick implementation options when power, water, and communications are interrupted.

### **What Are Utility Services**

Historically, critical incoming utilities consisted of electricity, steam, gas, and outgoing water, such as the need to release gray/waste water to sewer systems. As the U.S. economy continues to expand in service industries, critical utilities now include all forms of voice and data communication capability. Service interruption risk management must consider that, even with onsite electrical power generation, voice and data communications may still be interrupted.

### **The Insurable Exposure**

Direct damage may be loss of perishables (food, medical supplies, etc.), lack of refrigeration (no electricity), or overheated equipment in the manufacturing process (no water for cooling). Time element loss may arise out of direct damage if sales are lost, income reduced/eliminated, and operating expenses increased.

### **Service Interruption Insurance**

Property insurance policies typically consider loss from an off-premises service interruption to the insured's described premises an excluded peril. Some independently filed property insurance policies may provide direct damage coverage, usually a low limit such as \$25,000, but nothing for time element loss. An equipment breakdown policy (i.e., boiler and

machinery) will not respond to utility interruption unless there is a covered accident—that is, resulting damage to covered equipment.

Service interruption coverage endorsements can be from, or based on, Insurance Services Office, Inc., such as "Utility Services—Direct Damage" form CP 04 17 06 07 and "Utility Services—Time Element" form CP 15 45 06 07, or similarly written as part of independently filed policy endorsements. Since the utility service coverage may differ by insurer, it is imperative that the risk management professional review coverage forms when first offered and at any renewal, whether it is the same or a new insurer.

The forms will define the covered utility services (water supply, communications, and power), covered perils, and coverage trigger ("interruption of utility service"). Perils insured must be reviewed carefully as to type ("all risks," flood, earthquake, etc.) and then in terms of coverage limit.

Most insurers provide direct damage and time element coverage on a sublimit basis and now as part of the overall direct damage and time element limits. The use of sublimits will require the risk management professional to estimate the probable maximum loss that may occur to insured contents when determining a direct damage limit. A business interruption work sheet is an excellent tool to determine the potential time element exposure when deciding on limits.

Some insurers will allow interruption of incoming utilities if the interruption is from damage or destruction of utility transmission lines for electricity and communications. Transmission line coverage is not always available in the limits that may be needed, especially in areas prone to widespread damage from peril of wind.

## **Conclusion**

Supply chain risk management must include exposure analysis for interruption of all utilities. Proper attention to utility supply may allow the risk management professional to use some risk control techniques (backup generators, hot sites, etc.). Even with such risk control efforts, there will likely be a need for some form of risk financing.

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